

Applic. No.: 10/631,384  
Amdt. Dated March 28, 2005  
Reply to Office action of January 26, 2005

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-14 remain in the application. Claims 10-14 have been withdrawn and rejoinder of claims 10-14 has been requested.

In item 1 on page 2 of the above-identified Office action, the Examiner has stated that the document "Optoelektronik I" submitted with the IDS on 9/13/2004 has not been considered because a concise explanation of the relevance is not provided.

Applicants enclose herewith a concise explanation of the relevance for the document "Optoelektronik I" and consideration of the document is requested.

In item 2 on page 2 of the above-mentioned Office action, the Examiner has stated that the declaration filed 11/12/2004 under 37 CFR 1.131 is ineffective to overcome the Kinoshita (US PG-Pub 2003/0152125 A1) reference.

More specifically, the Examiner has stated that the evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of Kinoshita to

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either a constructive reduction to practice or an actual reduction to practice because no supporting evidence of any activity between the dates of 11/2/2001 and the filing date of the instant application has been submitted to establish due diligence.

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It is not understood why Applicants have to establish due diligence between the dates of 11/2/2001 and the filing date of the instant application. Under 37 CFR 1.131, the critical period in which diligence must be shown begins just prior to the effective date of the reference and ends with the date of a reduction to practice, either actual or constructive. It is noted that the effective date of the Kinoshita reference is February 13, 2002 and the date of a constructive reduction to practice of the invention of the instant application is the priority date of July 31, 2002. Therefore, Applicants only need to establish due diligence between February 12, 2002 and July 31, 2002.

The invention disclosure was received by the employer of the inventors on November 7, 2001 and it was decided on January 21, 2002 that a patent application should be filed. The patent attorney Mr. Schachtner, who is in charge of preparing the application document, sent a letter together with a draft application on May 28, 2002 to one of the inventors Mr.

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Albrecht for reviewing the correctness and completeness thereof. The inventor Mr. Albrecht answered on July 22, 2002 by fax and explained some points that need to be added to the draft. Both the attorney's letter on May 28, 2002 and the inventor's answer on July 22, 2002 are enclosed herewith as evidence.

Further, the Examiner is directed to the following passage in MPEP 715.07:

*"The purpose of filing a [37 CFR 1.131] affidavit is not to demonstrate prior invention, per se, but merely to antedate the effective date of a reference. See In re Moore, 58 CCPA 1340, 444 F.2d 572, 170 USPQ 260 (1971). Although the test for sufficiency of an affidavit under Rule 131(b) parallels that for determining priority of invention in an interference under 35 U.S.C. 102(g), it does not necessarily follow that Rule 131 practice is controlled by interference law. To the contrary, '[t]he parallel to interference practice found in Rule 131(b) should be recognized as one of convenience rather than necessity.' Id. at 1353, 444 F.2d at 580, 170 USPQ at 267. Thus, 'the 'conception' and 'reduction to practice' which must be established under the rule need not be the same as what is required in the 'interference' sense of those terms." Id.; accord, In re Borkowski, 505 F.2d 713, 718-19, 184 USPQ 29, 33 (CCPA 1974).*

*. . . Also, in interference practice, conception, reasonable diligence, and reduction to practice require corroboration, whereas averments made in a 37 CFR 1.131 affidavit or declaration do not require corroboration; an applicant may stand on his or her own affidavit or declaration if he or she so elects. Ex parte Hook, 102 USPQ 130 (Bd. App. 1953)."*

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In item 4 on page 3 of the above-mentioned Office action, claims 1-9 have been rejected as being anticipated by Kinoshita under 35 U.S.C. § 102(e).

In view of the above discussion and evidence, it is clearly established that the invention of the instant application antedates the Kinoshita reference. Therefore, the Kinoshita reference is not available as prior art and the Examiner's section 102 rejection on page 3 of the Office action is moot.

In view of the foregoing, reconsideration and allowance of claims 1-9 are solicited. Rejoinder of method claims 10-14 is requested upon allowance of product claims 1-9 under MPEP 821.04 ("if applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims which depend from or otherwise include all the limitations of the allowable product claim will be rejoined").

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

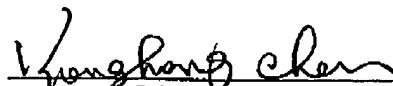
If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which

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might be due with respect to 37 CFR Sections 1.16 and 1.17 to  
the Deposit Account of Lerner and Greenberg, P.A., No. 12-  
1099.

Respectfully submitted,

Yonghong Chen  
Reg. No. 56,150



For Applicants

YC

March 28, 2005

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Concise explanation of the relevance of "Optoelektronik I"

This document was originally submitted to the Examiner in Taiwanese Patent Office to explain the DLDs (Dark Line Defects) mentioned in the specification of the instant application. This document describes on pages 300 and 301 the ageing of the luminescent diodes and the formation of dislocation lines along the principal crystal directions (compare page 301, lines 10-14). In contrast to the invention of the instant application, this document describes the application of defect-free substrates or the selection of the finished semiconductor layers (or the finished semiconductor components) to avoid this kind of defect.

## EPPING HERMANN & FISCHER

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Ihr Zeichen  
605

Unser Zeichen  
E2001,0705 DE E  
(ML/GS)

München,  
28-Mai-2002

### Erfindung „Verbesserung der Alterungsstabilität bei VCSEL“

Sehr geehrter Herr Albrecht,

anbei erhalten Sie den Entwurf für eine Patentanmeldung zur oben genannten Erfindung.

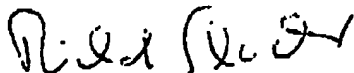
Wir möchten Sie bitten, diesen hinsichtlich technischer Vollständigkeit und Richtigkeit - evtl. unter Einbeziehung der Miterfinder - genau zu überprüfen, gegebenenfalls zu korrigieren oder zu ergänzen.

✂ Sofern Sie mit der vorgeschlagenen Fassung einschließlich etwaiger Änderungsvorschläge einverstanden sind, unterzeichnen Sie bitte die beiliegende Erklärung und senden sie diese an uns zurück. Für den Eingang Ihrer Antwort haben wir uns den

11. Juni 2002  
v. 65

vorgemerkt. Für Rückfragen steht Ihnen der zuständige Bearbeiter gerne zur Verfügung.

Mit freundlichen Grüßen



Richard Schachtner  
Patentanwalt

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**EINGANG**  
Epping Hermann & Fischer

22. Juli 2002

Frist: .....

Sehr geehrter Herr Lettenberger,

bezüglich der Erfindungsmeldung „Verbesserung der Alterungsstabilität bei VCSEL“ E2001,0705DE E würden wir noch einige Punkte ergänzt/ verändert haben.

Zuerst muß ich mich jedoch wegen meiner sehr verspäteten Rückmeldung entschuldigen.

1. S.4 Beispiele für Materialverbindungen: InGaAlAs, InGaAlP, InGaAsP, InGaNAs
2. S.7 Eine Ausführungsform könnte wie folgt aussehen:  
Schichten 8, 11 (Braggspiegel) Paare aus  $Al_{0.2}Ga_{0.8}As$ /  $Al_{0.9}Ga_{0.1}As$  -Schichten  
Schicht 9 (aktive Schicht) 3 GaAs-QW für Emissionswellenlänge 850nm  
Schicht 10 (Stromeinschnürungsschicht) AlAs-Schicht, teilweise lateral oxidiert  
Schicht 12 (p-Kontakt) TiPtAu-Kontakt  
Schicht 13 (n-Kontakt) AuGe-Kontakt

Ich hoffe meine Erläuterungen können noch in den bestehenden Entwurf eingebaut werden. Für weitere Fragen stehe ich Ihnen gerne zur Verfügung.

Vielen Dank,

Mit freundlichen Grüßen

T. Albrecht